

ENVIRONMENTAL ASSESSMENT
FOR THE PROPOSED
CEDAR PASS AIRFIELD
NEVADA TEST AND TRAINING RANGE
NELLIS AIR FORCE BASE, NEVADA

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APPENDIX A - Range Map With Project Location

APPENDIX B – Public Comments & Responses

1. PURPOSE OF AND NEED FOR ACTION

1.1. Proposed Action

The proposed action would be to construct a 5,000 foot long by 100 foot wide dirt runway within the Nevada Test and Training Range (NTTR) approximately 60 miles east of Tonopah, Nevada. More specifically, the runway would be located approximately two miles northwest of Cedar Pass Gate, within the range subdivision known as Electronic Combat (EC) East. See map at Appendix A.

1.2 Purpose and Need for Action

The purpose of the proposed action would be to provide unlimited specialized training under simulated battlefield conditions for aircrews and ground forces. This training is needed to provide all aspects of contingency training for the airlift community, to include short takeoffs and landings and delivery of personnel and cargo. The action is proposed because the Air Force has limited areas in which to conduct training in simulated battlefield conditions. The project will provide airlift-training scenarios that cannot be duplicated at other Air Force training locations.

1.3 Objectives of the Proposed Action

The objective of the proposed action is to provide a long term training solution for the NTTR. The proposed action would create a realistic training area for tactical airlift units and ground forces. Construction of the dirt airstrip would:

- increase training opportunities
- improve training scenarios
- optimize range time
- decrease travel time for support units

1.4 Scope of Analysis

This document reviews impacts related to the proposed action such as the Air Installation Compatibility Use Zone (AICUZ), air quality, water quality, occupational health, hazardous materials, natural and cultural resources, and environmental concerns. Issues, determined to be environmentally effected, are land use, air quality (dust), and biological. The remaining environmental issues were determined to be unaffected. Effects of the proposed action would be confined to the NTTR and are not likely to reach any populated area; therefore

Environmental Justice and Socioeconomic issues are not discussed in this document.

2. ALTERNATIVES INCLUDING THE PROPOSED ACTION

2.1. Description of alternatives, including the proposed action and no action

2.1.1 – No Action

Currently this training is accomplished using Mellan Airfield, see location map at Appendix A. This site is minimally adequate to meet the omission requirements because of the location and condition of the airfield. It does not meet the purpose of the desired training, which are short field take off and landings from unimproved dirt strips. Mellan Airfield is the only airfield available on the NTTR to train under simulated combat conditions. It is located within EC West approximately 15 miles south of Tonopah Airfield. This 5,000 foot, asphalt runway does not provide realistic training for combat situations due to the location and runway surface. Part of the training conducted on the range involves opposing forces from different locations. This is not currently possible with only one training airfield.

Mellan Airfield is in need of continual repair and weed control. In addition, it does not provide the needed realistic training that a dirt field provides. Cargo aircraft have the high potential to land on unimproved strips all over the world. These dirt strips are shorter and narrower and do not have the standard facilities such as lighting, landing, and navigation aids that surfaced runways possess. This requires a different landing technique involving a steeper than normal approach to a maximum performance landing where the aircraft is brought to a very rapid halt. The takeoff is shorter than normal followed by a rapid initial ascent.

Mellan Airfield is located in the middle of a training route used by aircraft attacking targets on Ranges 74, 75, and 76. Scheduling conflicts prevent free use of the field by all users. Also, operational tests take priority over training.

The current location is in the middle of simulated enemy territory. This is an unrealistic location because to land in the middle of enemy territory to conduct operations does not enhance survivability. It is also not tactically smart and does not contribute to the “Train Like You Fight” philosophy. Also, training with fighter aircraft to provide protection can rarely be provided.

The location of Mellan Airfield and activities conducted in and around the airfield prevent free and unrestricted access of ground personnel needed to support operations.

2.1.2 Proposed Action

The proposed action would be to construct a 5000 by 100-foot dirt runway north east of Cedar Pass.

The action would be used to support expanding operations required by airlift assets by increasing training opportunities because it is outside EC West and away from numbered ranges. EC West and numbered ranges require scheduled access. EC East does also but due to the proposed location of the airfield (northeast corner) joint use is easier to schedule and safer.

The field will be designed to simulate battlefield conditions. No structures currently exist on the site and none are planned. Personnel involved in exercises at the airfield will be there on a temporary basis therefore sanitary facilities will not exist. If exercises require a prolonged presence, port –a-potties will be provided. In addition, units will bring in their own water.

The airfield would improve training scenarios by providing all aspects of contingency training to include short takeoffs, delivery of personnel and cargo, and a Forward Air Refueling Point (FARP) for helicopter and C-130 operations. Also, a dirt strip would provide more realistic training.

Nellis combat training programs known as Red Flag and Green Flag conduct up to six exercises a year incorporating airlift operations. Each exercise consists of three, two-week sessions. In addition, other training exercises are provided for combat search and rescue missions, Army Special Forces, and other training. During each exercise various aircraft are flown to include C, MC, and AC-130s, C-17, C-160, C-235, and C-222. A typical exercise would have up to six aircraft performing multiple take off and landings. This would result in approximately 400 sorties per year. The airfield would enable crews to practice steeper than normal approaches and a maximum performance landings where the aircraft is brought to a very rapid halt. Personnel or equipment are offloaded and the aircraft takes off with a shorter than normal takeoff roll followed by a rapid initial ascent. Performance is usually based on a 3000-foot runway at sea level, but due to the high-pressure altitudes, extreme temperatures and aircraft capabilities, a 5000-foot runway is required.

Users would be U.S. and allied airlift, Combat Search and Rescue (CSAR), and special operations training organizations. Training would be conducted primarily during Flag exercises.

Locating the new field near the simulated Forward Edge of the Battle Area (FEBA) would provide realistic training. The map at appendix two shows the location of the FEBA and flow of a typical exercise. Most airlift aircraft have no defensive capability so sending an aircraft behind enemy lines is not tactically sound. Once past the FEBA, fighter aircraft turn their attention to avoiding the threat and making their way to the target area. The location will provide the fighters an opportunity to add coverage for airlift operations. This would benefit both fighter and airlift crews. Fire and crash coverage would be provided by personnel on temporary duty (TDY) from units around the country.

The northeast portion of EC East is rarely used for anything but drop zones and over flights. Locating the airfield would optimize range time and decrease travel time for support units.

Refueling operations will be conducted so a small amount of hazardous waste would be generated. Wastes generated would typically be rags, pads contaminated small amounts of fuel or oil, residue, and material used to clean up any spill. Supplies for spill containment would be available on site. The range Operations and Maintenance (O&M) contractor would manage hazardous materials and wastes on the NTTR providing appropriate containers and oversight of waste management operations. It is estimated that 50 pounds of waste would be generated per year.

Since more than 11 acres would be disturbed in construction of the runway, invasive plants would have to be managed. To prevent the establishment, reproduction, and dispersal of invasive plants, the area would be surveyed annually, usually in late winter or early spring depending on the amount of water received the previous winter. Any invasive plants found would be eradicated using approved herbicides and/or grading (Personal communication with Nellis AFB Biologist, May 2000).

2.1.3 Alternative – Alternate location for dirt runway

The alternative action would be to construct a 5,000 by 100-foot dirt runway within Range 74C near Ragged Ridge. The action would be used to support expanded operations training required by airlift assets.

This would provide realistic training operations. However, safety constraints that restrict personnel access to an active bombing range when the range is in use would curtail operations. This would restrict the use of the airfield to times when there are no armed aircraft operating on the range. The area is also located in a primary ingress and egress route to the north range. Operations in this area are conducted in a high speed, low altitude environment. The area provides a better location for Army and Air Force Special Forces than Mellan Airfield but

arrangements would still be needed to gain entry to the range and access across numerous ranges, which are used at different times.

2.2. Description of Alternatives Considered but Eliminated from Detailed Study

2.2.1. Construct dirt runaway next to Mellan Airfield

This alternative does not meet mission objectives because of its location on the range.

2.2.2. Use the existing, non-DoD, airfield near Alamo, NV

This alternative would not optimally support operations because the field is located too far from the FEBA to be an effective training location. Although presently used by military cargo aircraft, the field is owned, controlled by Lincoln County and used by civilian traffic, which restricts its use. Security and safety factors are additional issues that affect free and unrestricted use.

2.2.3 Locate Airfield on a Dry Lake Bed North of Rachel, NV

This alternative was eliminated because the location is not located on the NTTR and is too far from the FEBA. In addition, the lake is located within a restricted area where overflights are prohibited below 1500 feet above the ground.

2.2.4 Locate Airfield on Mud Lake in Range 71 North

Range 71 is an active range with exercises and tests taking priority. The dirt strip would be located within simulated enemy territory, which does not meet the training objectives. In addition, when it rains, Mud Lake fills up with water, which would make it unusable.

3. AFFECTED ENVIRONMENT

3.1. Description of Area

The project area is located at 6,300 feet above sea level, in an area of eroded soil with washes. The alternative location is on Range 74C near Ragged Ridge.

The land encompassed by the NTTR was once used primarily for mining and some grazing, until the establishment of the range in the 1940s. Since the 1940s, the land has been used for military purposes. Although the land is used primarily by the military, some mining and controlled recreation activities still occur on NTTR.

The range complex includes cantonment areas, targets, electronic sites, roads, and open spaces. The North Range contains approximately 1,025 individual targets within 131 tactical target complexes. The targets are typically located on the dry lake beds or valley floors. Target construction and modifications, and ordnance deliveries make the target

areas almost completely disturbed. Other than ordnance delivery, target maintenance is the main activities occurring in target areas. A typical cleanup includes unexploded ordnance removal by Explosive Ordnance Disposal (EOD) personnel and target refurbishment.

Electronic sites include radar, emitter sites, and scoring sites. One of the more important aspects of NTTR are the electronic combat ranges. These ranges allow aircrews to conduct operations against a variety of simulated threats.

Paved and unpaved roads provide the transportation system connecting all of the above facilities. The road types include two lane paved roads, two lane, improved graded roads, unimproved graded roads, and trails. Most of the roads lie in the valley floors where the majority of activity occurs. A few cross mountain passes to connect adjacent areas.

Open spaces make up the vast majority of the NTTR. The mountainous areas above 6000' feet provide habitat for the Desert Bighorn Sheep. Since the primary purpose of NTTR is for military use, the mountainous areas are infrequently used. This remoteness of areas provides habitat for many plant and animal species. The Nevada Wild Horse Range is an area on the northern range complex for the management of wild horses.

3.2 Noise

Three activities on NTTR generate most of the noise levels on the range. They are predominately subsonic noise from aircraft overflights, sonic booms generated by supersonic flight, and detonation of high explosives associated with the live munitions deliveries and range clean up and disposal. Increased noise levels can also occur because of ground activities including construction. Federal Occupational Safety and Health regulations codified in 29 Code of Federal Regulations prescribe the standards for sound levels for worker exposure.

Noise generated by aircraft overflight changes continually. As an aircraft approaches, the noise level begins at ambient level and increases to a maximum level as the aircraft reaches its closest point and falls back to ambient as the plane flies away. Military aircraft can fly low and fast causing the sound level to rise from ambient to the maximum level very quickly.

Sonic booms occur when an aircraft exceeds the speed of sound causing a pressure wave. Sonic booms generally occur over a short period of time and at a broader frequency range than subsonic overflights.

Similar to sonic booms, detonations also cause a pressure wave and sound similar to a sonic boom but have a little longer duration.

The subsonic overflights, sonic booms, and detonations are short-term sound events and not pose any physical threats to people. On the other hand, noise from construction work

and heavy machinery typically is constant for much of an average workday. Continuous sound levels from this type of activity can exceed 100dB. Sound levels this high can cause temporary and/or permanent hearing loss. Personnel working in elevated noise areas are required by law to wear hearing protection.

3.3 Water Quality

Surface Water

NTTR lies in an arid setting where annual rainfall seldom exceeds 7.1 inches, with the majority falling during the winter months. Some 50 springs make up the surface water resources on NTTR. Infrequent storm water runoff has been known to cause minor flooding. However, throughout most of the range, surface runoff from brief storm events is channeled through natural drainage and quickly infiltrates the coarse-grained alluvium of the bajadas. Rare surface water runoff that reaches lower elevations accumulates in the playas and is lost through evaporation.

There are 53 existing surface water appropriations on the NTTR of which 64% are owned by government agencies and 36% are privately held.

Groundwater

A total of 1851.9-acre feet per year of groundwater have been appropriated for the NTTR through the Nevada State Water Engineers Office. Of this total 97% has been appropriated to U.S. government with 99% of this appropriation designated for municipal or domestic use and 1% for stock use. The remaining 3% have been privately appropriated for stock or domestic use.

Storm Water

The project area is located on a gentle slope with numerous washes lying perpendicular to the proposed runway direction. This allows for natural storm water run off. Culverts will be installed so that the natural run off is not impeded.

The Code of Federal Regulations, specifically 40 CFR 122.26 (b)(14) require a Storm Water Permit if the area disturbed is more than five acres. Over 11 acres will be disturbed so a permit would be required.

3.4 Air Quality

The USAF conducts its primary flight operations mission at the NTTR over a very broad area that spans more than three million acres. The relatively small amounts of pollutants emitted are distributed over a large area, thereby contributing to minor concentrations at any one location. Air emissions from range activities and operations do not adversely affect public health and safety in this very sparsely populated portion of Nevada. The NTTR is totally withdrawn land and, as such, does not permit nonmilitary access or local development of any kind.

Air emissions from ground facilities on the NTTR result primarily from aircraft ground maintenance, motor vehicle and fuel storage and refueling operations. An emission inventory has been prepared for the base operations at Tonopah Test Range. However, specific emission inventory data is not available for air emissions due to range operations resulting from range maintenance, ordnance delivery and weapons testing.

Smoke generators would periodically be used. The Nevada Division of Environmental Protection, Bureau of Air Quality, has determined that smoke generators are exempt from any permit requirements.

Smoke generators would be restricted from adding graphite particulate to the material used to generate smoke. In addition, the Air Force would ensure that the range spill plan reflects all requirements to support any spills. Generators would be positioned within spill containment in the event of a spill. Finally, reporting requirements for total quantity of material used must be reported annually to the 99 CES/CEV.

The State of Nevada is reviewing Nellis AFB and range requirements for a Title V Air Permit.

3.5 Safety

Aircraft flight operations on the NTTR are governed by standard rules of flight. Additionally, specific procedures applicable to local operations are contained in detailed standard operating procedures that must be followed by all aircrews operating from Nellis AFB (Nellis Instruction 11-250).

Response to a mishap is the responsibility of the Air Force fire department at the Tonopah Test Range.

3.6 Hazardous Materials and Waste

Hazardous materials and waste operations are conducted in compliance with federal, Air Force, state, and county laws, instructions, and regulations. In addition, specific procedures for managing hazardous waste are contained in Nellis AFB Plan 12.

A site survey indicates there is no chemical, radiation, asbestos or lead based paint contamination on the proposed site.

3.7 Biological Resources

The proposed action is located within the Great Basin, a physiographic region with no external drainage characterized by “basin and range” topography, in

which hydrographically isolated basins or valleys are separated by north-south trending mountain ranges. The Great Basin Desert in the northern ranges is higher and colder than the Mojave Desert. Precipitation in the Great Basin Desert consists primarily of winter snow and summer thunderstorms.

Threatened, Endangered, or Sensitive Species

Threatened, endangered, or sensitive species are defined as those plant and animal species listed as threatened, endangered, or proposed as such by the USFWS and/or Nevada Division of Wildlife (NDOW). The Endangered Species Act (ESA) is probably the most notable means of the preservation of threatened and endangered species. The State of Nevada also protects state-listed plant and animal species through the Nevada Revised Statutes (NRS) and regulations in the Nevada Administrative Code (NAC). Additionally, the Nevada Natural Heritage Program (NNHP) maintains a database of state species of concern, many of which are not afforded legal protection.

Vegetation

The vegetation of the Northern Ranges of the NTTR is characterized by floral elements of the Great Basin Desert. In general, vegetation varies geographically and with elevation. The proposed action occurs within the Black Sagebrush Plant Community. Black Sagebrush (*Artemisia nova*) is the dominant shrub species with Shadscale (*Atriplex confertifolia*) as the subdominant species. Other plant species include Yellow Rabbitbrush (*Chrysothamnus viscidiflorus*) and Nevada Jointfur (*Ephedra nevadensis*). There are no federally threatened, endangered, or sensitive species likely to occur at or near the proposed site. Additionally, there are no state listed plant species likely to occur on or near the proposed site.

Wildlife

The Great Basin Desert supports a variety of mammal, bird, and reptile species. Big game animals managed by the Nevada Division of Wildlife are mule deer, big horn sheep, and pronghorn antelope. Mule deer and big horn sheep are found primarily in the higher elevations with bighorn associated with steep, rocky terrain and cliffs. Pronghorn are generally associated with valleys and other flat, open grassland areas. Although uncommon, mule deer and pronghorn may be found at the proposed site. Other mammal species likely to occur in this habitat include coyote, badger, skunk, fox, bobcat, and several bat and rodent species.

Wild horses and burros are protected under Public Law 92-195, the Wild Free-Roaming Horse and Burro Act of 1971. Approximately 1,200 wild horses are present on the 394,500-acre Nevada Wild Horse Range (NWHR) located in the northeastern portion of the North Range. The Bureau of Land Management (BLM) manages the wild horses within the range boundary and maintains the area burro-free. The proposed action would be within the Nevada Wild Horse Range.

Birds associated with the North Range sagebrush community include the sage thrasher (*Oreoscoptes montanus*), sage grouse (*Centrocercus urophasianus*), and the sage sparrow. Less frequent observed bird species include the green-tailed towhee (*Pipilo chlorurus*), mourning dove, greater roadrunner, and the common nighthawk. Raptors found in the North Range with Swainson's hawk (*Buteo swainsoni*) and ferruginous hawk (*Buteo regalis*).

The colder environment of the Great Basin makes the prevalence of reptiles less than in the warmer Mojave Desert. Species common to the Great Basin habitats include the sagebrush lizard (*Sceloporus graciosus*), leopard lizard (*Gambelia wislizenii*), Great Basin rattlesnake (*Crotalus viridis luteosus*). There are no federally threatened, endangered, or sensitive wildlife species likely to occur at or near the proposed site. Additionally, there are no state listed animal species likely to occur on or near the proposed site.

3.8 Cultural Resources

Cultural resources are defined as any prehistoric or historic district, site, building, structure, or object considered to be important to a culture, subculture, or community for scientific, traditional, religious, or any other reason. Cultural resources are typically divided into three major categories: prehistoric and historic archaeological resources, architectural resources, and traditional cultural resources.

Prehistoric and historic archaeological resources are locations where human activity measurably altered the earth or left deposits of physical remains (e.g., arrowheads, bottles). To archaeologists, prehistoric archaeological resources predate written records. In southern Nevada these resources range from isolated stone tools to rock shelters and petroglyphs. Historic archaeological resources in Nevada include mines and associated debris, railroads, tails, and dumps.

Architectural resources are standing buildings, dams, canals, bridges, and other structures of historic or aesthetic significance. In Nevada, all architectural resources are historic in age.

Traditional cultural resources are resources associated with cultural practices and beliefs of a living community that are rooted in its history and are important in maintaining the continuing cultural identity of the community. In Nevada these resources are primarily associated with descendants of aboriginal American Indian groups. Traditional American Indian resources may include archaeological resources, locations of historic events, sacred areas, sources of raw material used to produce tools and sacred objects, traditional hunting or gathering areas, and native plants or animals. American Indians may consider these resources essential

for the persistence of their traditional culture.

Under federal regulation, only significant cultural resources warrant consideration with regard to adverse impacts resulting from a federal undertaking. Significant archaeological, architectural, and traditional resources include those that are eligible or recommended as eligible for inclusion in the National Register of Historic Places (NRHP). The significance of prehistoric and historic archaeological resources and architectural resources must be evaluated according to NRHP eligibility criteria (36 CFR 60.4), in consultation with the State Historic Preservation Officer (SHPO). According to these criteria, “significance” is present in districts, sites, buildings, structures, and objects that:

- a) Are associated with events that have made a significant contribution to the broad patterns of history;
- b) Are associated with the lives of persons significant in the past;
- c) Embody the distinctive characteristics of a type, period, or method of construction, represent the work of a master, possess high artistic value, or represent a significant and distinguishable entity whose components may lack individual distinction; or
- d) Have yielded or may be likely to yield information important in prehistory or history.

An archaeological or architectural resource that is eligible to the NRHP is called a historic property. To be listed on or determined eligible for listing on the NRHP, a cultural resource must meet at least one of the above criteria and must also possess integrity. Integrity is defined as the authenticity of a resource’s historic identity as evidenced by the survival of physical characteristics that existed during the historic or prehistoric occupation or use. The NRHP recognizes seven aspects or qualities that, in various combinations, define integrity: location, design, setting, materials, workmanship, feeling, and association. Integrity of location means that the cultural resource has not been moved. Integrity of design, materials, and workmanship means that the resource’s original building materials, plan, shape, and design elements remain intact. Integrity of setting means that the surrounding landscape remains largely as it was during the resource’s period of significance. Integrity of feeling and association means the resource retains a link to an earlier time and place and is able to evoke that era.

The determination of significance is made in consultation with the SHPO. Significant historic resources usually must be at least 50 years old; however, certain structures associated with more recent, exceptionally important historical events (e.g., the Cold War) also may be considered eligible for the NRHP. Archaeological isolates, because of their small size and limited information

potential, are not considered eligible for the NRHP by the Nevada SHPO.

Certain categories of tangible American Indian resources, such as ancestral settlements or petroglyph and pictograph sites, may be protected through their eligibility to the NRHP. On the other hand, natural features and spiritual locations may not be addressed in historic preservation legislation if their historic use cannot be documented, if the resource does not have an integral relationship to traditional cultural practices and beliefs, if the present condition is such that the relationships no longer survive, if the resource's boundaries cannot be delineated, or if the resource does not meet NRHP criteria.

Even though a cultural resource may not be considered significant according to NRHP criteria, it may still have importance as a traditional resource to a particular tribe. In this case, traditional resources may be protected according to the consultation provisions of the Native American Graves and Repatriation Act if it contains a human burial or the American Indian Religious Freedom Act and Executive Order 13007, Indian Sacred Sites if it is important in religious rituals.

A single traditional resource may also be significant for more than one reason. For example, an outcrop of an unusual type of chert may be important to a tribe as a source of raw material for making tools, a source of medicine, a spiritual location, a link to the groups ethnic identity, a location to teach children about traditional beliefs and practices, and as a former living site.

The archaeological record reflects the activities and lifeways of people who, during the past several milleniums, lived in an arid environment. Southern Nevada, which includes NTTR lands, is a unique region because it is at the interface of three distinct geographical zones: the Colorado Plateau, Mojave Desert and Great Basin. Each zone shows evidence of people who skillfully utilized the natural resources.

3.9 Geology and Soils

The geology and soils are suitable for construction. The area is eroded and permeated with washes. Culverts would be installed to maintain the natural drainage and protect the runway from flood damage.

There are no Installation Restoration Program (IRP) sites located in the area.

4 ENVIRONMENTAL CONSEQUENCES

4.1 No Action Alternative

Under this alternative, forces would continue use of the Mellan Airfield. Current operations would continue to be impacted and the runway unable to meet the expanding needs of the Air Force.

4.2 Proposed Action

4.2.1 Noise

The only noise source would be construction and aircraft noise. The proposed project would not utilize aircraft capable of producing sonic booms.

4.2.2 Water Quality

The area to be disturbed will be over five acres so a storm water permit from the State of Nevada would be required.

Surface Water

There are no surface water sources within the proposed area, therefore, no impact.

Ground Water

The upper aquifer starts at a depth of approximately 850 feet therefore groundwater contamination would not be an issue.

Storm Water

The project area is permeated with numerous washes, which the runway will cross. These washes assist in drainage so culverts would be installed to maintain the drainage and protect the field from flood damage. In addition, Rip Rap would be placed at the exits to control the flow of water.

4.2.3 Air Quality

NTTR operations are authorized through a State of Nevada Class II Air Quality Operating Permit # AP9711-0557. According to the permit, a dust permit is not required. At the completion of the project, a report documenting the amount of surface disturbance must be generated and sent to the state.

During construction, dust control will be accomplished using common, approved methods.

4.2.4 Safety

There would be risks associated with the proposed operational activities at Cedar Pass.

The airfield will not be fenced. There is no avoidance contingency initiative for large mammals. Since wild horse, pronghorn, and deer populations are low (based on aerial census) the potential for collisions would be low (Personal communication with the Nellis AFB Biologist, May 2000).

Ground and flight safety Air Force Instructions, practices, standards, and rules, as required by the U.S. Air Force, pertaining to remote airfield operations, would apply during all operational activities.

4.2.5 Hazardous Materials/Waste

Since the airfield will be used for refueling, there would be hazardous materials used and hazardous waste generated. During aircraft operations, hazardous materials, such as, Petroleum Oil and Lubricants (POL) will be used. Any hazardous waste generated will be handled in accordance with all applicable Air Force, county, state, and federal instructions, laws, and regulations.

There would be no chemical exposure effects or radiation associated with the construction of the airfield. The operation of the airfield would have the potential of exposure to small quantity of consumer chemicals incidental to operating support equipment. Since the personnel employed at Mellan Airfield would be the same personnel at the proposed location, there would be no increase of the potential for exposure.

4.2.6 Biological Resources

There would be over 11 acres of vegetation lost in completing the airfield. No federally listed plant or animal species would be affected by this project. Effects to wild horses in the area would be minimal.

Threatened, Endangered, or Sensitive Species

Although a survey was conducted as part of the Nellis Range Withdrawal, Legislative Environmental Impact Statement, a detailed survey of the project area was not accomplished. Based on a literature search, the Nellis AFB Biologist believes that no sensitive, threatened, or endangered animal species are likely to occur at or near the proposed site.

Vegetation

The impact to vegetation would be from construction. Over 11.5 acres would be lost due to construction of the airfield.

To prevent the establishment, reproduction, and dispersal of invasive plants, the area would be surveyed annually, usually in late winter or early spring depending on precipitation. All invasive plants found would be eradicated using approved herbicides and/or grading.

Wildlife

The greatest impact would be from aircraft approaches and takeoffs and the concomitant subsonic noise.

Studies on subsonic aircraft disturbances of animals in field conditions have shown that effects are transient and of short duration and suggest that the animals habituate to the sounds (Workman et al. 1992; Krausman et al. 1993; 1998; Weisberger et al. 1996). Consequently, aircraft operations are not expected to significantly impact wildlife.

4.2.7 Cultural Resources

Section 106 of *The National Historic Preservation Act of 1966* requires that Federal agencies take into account the effects of their undertakings on historic properties. Efforts to identify and evaluate cultural resource properties for this project according to 36 CFR 800.4 are described in the Nellis Air Force Base Cultural Resources Inventory Report 98-12.

As a result of the inventory documented in Cultural Resource Report NAFB 98-12, no archaeological properties were found within the Area of Potential Effect for the project. The report was forwarded to the Nevada State Historic Preservation Office for review with a determination there were no historic properties located within the area of potential effect. SHPO has concurred with this determination. However, if unexpected cultural resource is found during construction, work would stop and the Nellis Archaeologist would be contacted for a site inspection. The Nellis AFB Archaeologist would also notify Native Americans, including the American Indian Monitoring Team, and a field inspection conducted.

4.2.8 Geology and Soils

The geology and soils are suitable for construction. The area is eroded and permeated with washes. Culverts would be installed to maintain the natural drainage and protect the runway from flood damage.

There are no Installation Restoration Program (IRP) sites located in the area.

4.3 Alternative Action – Ragged Ridge

4.3.1 Noise

The only noise source due to the alternative action would be construction and aircraft noise.

4.3.2 Water Quality

The area to be disturbed will be over five acres so a storm water permit from the State of Nevada would be required.

Surface Water

There are no surface water sources within the proposed area, therefore, no impact.

Ground Water

The upper aquifer starts at a depth of approximately 850 feet therefore groundwater contamination would not be an issue.

Storm Water

The project area is permeated with numerous washes, which the runway will cross. These washes assist in drainage so culverts would be installed to maintain the drainage and protect the field from flood damage.

4.3.3 Air Quality

NTTR operations are permitted with a State of Nevada Class II Air Quality Operating Permit # AP9711-0557. According to the permit, a dust permit is not required. At the completion of the project, a report documenting the amount of surface disturbance must be generated and sent to the state.

4.3.4 Safety

Ground and flight safety Air Force Instructions, practices, standards, and rules, as required by the U.S. Air Force, pertaining to remote airfield operations, would apply during all operational activities.

4.3.5 Hazardous Materials and Waste

Since the airfield will be used for refueling, there would be hazardous materials used and hazardous wastes generated. During aircraft operations, hazardous materials, such as, POL will be used. Any hazardous waste generated will be handled in accordance with all applicable federal, Air Force, state, and county, laws, instructions, and regulations.

There would be no chemical exposure effects or radiation associated with the construction of the airfield. The operation of the airfield would have the potential of exposure to small quantity of consumer chemicals incidental to operating Aircraft Generating Equipment (AGE) equipment. Since the personnel employed at Mellan Airfield would be the same personnel at the proposed location, there would be no increase of the potential for exposure

4.3.6 Biological Resources

There would be over 11 acres of vegetation lost to complete the project. No federally listed plant or animal species would be affected by this project.

To prevent the establishment, reproduction, and dispersal of invasive plants, the area would be surveyed annually, usually in late winter or early spring depending on the amount of water received the previous winter. Any invasive plants found would be eradicated using approved herbicides and/or grading.

Threatened, Endangered, or Sensitive Species

A survey conducted has determined that there are no federally listed threatened, endangered, or sensitive species known to occur in the project area, therefore no impact.

Vegetation

To prevent the establishment, reproduction, and dispersal of invasive plants, the area would be surveyed annually, usually in late winter or early spring depending on precipitation. All invasive plants found would be eradicated using approved herbicides and/or grading.

Wildlife

The greatest impact would be from aircraft approaches and takeoffs and the concomitant subsonic noise.

Studies on subsonic aircraft disturbances of animals in field conditions have shown that effects are transient and of short duration and suggest that the animals habituate to the sounds (Workman et al. 1992; Krausman et al. 1993; 1998; Weisberger et al. 1996). Consequently, aircraft operations are not expected to significantly impact wildlife.

4.3.7 Cultural resources

An assessment of the alternate area has not been accomplished. It will be accomplished if the area is selected.

4.3.8 Geology and Soils

The geology and soils are suitable for construction. The area is eroded and permeated with washes. Culverts would be installed to maintain the natural drainage and protect the runway from flood damage.

There are no Installation Restoration Program (IRP) sites located in the area.

5. References

U.S. Geological Survey Water-Resources Investigation Report 96-4109. 1996 Summary of Hydrogeologic Controls on Ground-Water Flow at the Nevada test Site, Nye County, Nevada. Prepared in cooperation with the Office of Environmental Restoration and Waste Management, U.S. Department of Energy, Nevada Operations Center

Department of the Air Force. 1999. Renewal of the Nellis Air Force Range Land Withdrawal, Legislative Environmental Impact Statement.

Department of the Air Force. 1999. F-22 Aircraft Force Development Evaluation and Weapons School Beddown, Nellis, Environmental Impact Statement.

Department of the Air Force. 1998. Water Requirements Study of the Nellis Air Force Range, Nellis Air Force Range, Nevada.

6. List of Prepares

Pat Dwyer

7. List of Persons Consulted

Lt Col Richard Scarine, Range Management Office

Lt Frank Hughes, Range Management Office

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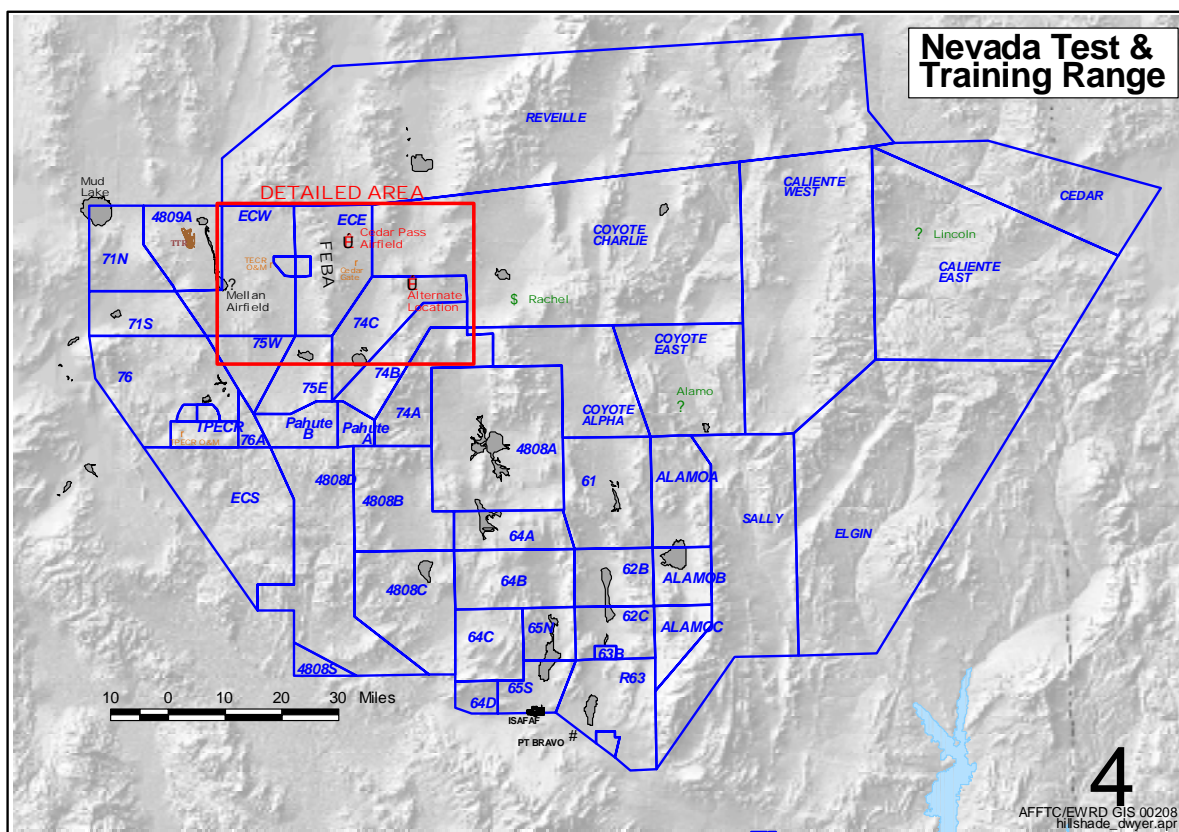
Conrad Dziejewski, Nellis Environmental Management Office

Kathleen Peterson, Lockheed Martin

Dick Steenhoek, Lockheed Martin

Roger Schofield, Anser Inc.

APPENDIX A



APPENDIX B

INTERNAL AIR FORCE

Various Locations – Grammatical and Clarification Changes

PUBLIC/AGENCY